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widget are undertaken after the beginning of commercial production of the unimproved widget does not bar the activities from credit eligibility because those activities constitute a new research project to develop a new business component, an improved widget.

Example 3. (i) Facts. X, a computer software development firm, owns all substantial rights in a general ledger accounting software core program that X markets and licenses to customers. X incurs expenditures in adapting the core software program to the requirements of C, one of X's customers.

(ii) Conclusion. Because X's activities represent activities to adapt an existing software program to a particular customer's requirement, X's activities are excluded from the definition of qualified research under section 41(d)(4)(B) and paragraph (c)(3) of this section.

Example 4. (i) Facts. The facts are the same as in Example 3, except that C pays X to adapt the core software program to C's requirements.

(ii) Conclusion. Because X's activities are excluded from the definition of qualified research under section 41(d)(4)(B) and paragraph (c)(3) of this section, C's payments to X do not constitute contract research expenses under section 41(b)(3)(A).

Example 5. (i) Facts. The facts are the same as in Example 3, except that C's own employees adapt the core software program to C's requirements.

(ii) Conclusion. Because C's employees' activities are excluded from the definition of qualified research under section 41(d)(4)(B) and paragraph (c)(3) of this section, the wages C paid to its employees do not constitute in-house research expenses under section 41(b)(2)(A).

Example 6. (i) Facts. An existing gasoline additive is manufactured by Y using three ingredients, A, B, and C. X seeks to develop and manufacture its own gasoline additive that appears and functions in a manner similar to Y's additive. To develop its own additive, X first inspects the composition of Y's additive, and uses knowledge gained from the inspection to reproduce A and B in the laboratory. Any differences between ingredients A and B that are used in Y's additive and those reproduced by X are insignificant and are not material to the viability, effectiveness, or cost of A and B. X desires to use with A and B an ingredient that has a materially lower cost than ingredient C. Accordingly, X engages in a process of experimentation to discover potential alternative formulations of the additive (i.e., the development and use of various ingredients other than C to use with A and B).

(ii) Conclusion. X's activities in analyzing and reproducing ingredients A and B involve duplication of existing business components and are excluded from qualified research under section 41(d)(4)(C) and paragraph (c)(4) of this section. X's experimentation activities to discover potential alternative formulations of the additive do not involve duplication of an existing business component and are not excluded from qualified research under section 41(d)(4)(C) and paragraph (c)(4) of this section.

Example 7. (i) Facts. X, an insurance company, develops a new life insurance product. In the course of developing the product, X engages in research with respect to the effect of pricing and tax consequences on demand for the product, the expected volatility of interest rates, and the expected mortality rates (based on published data and prior insurance claims).

(ii) Conclusion. X's activities related to the new product represent research in the social sciences, and are thus excluded from qualified research under section 41(d)(4)(G) and paragraph (c)(8) of this section.

(d) *Documentation*. No credit shall be allowed under section 41 with regard to an expenditure relating to a research project unless the taxpayer—

- (1) Prepares documentation before or during the early stages of the research project, that describes the principal questions to be answered and the information the taxpayer seeks to obtain to satisfy the requirements of paragraph (a)(3) of this section, and retains that documentation on paper or electronically in the manner prescribed in applicable regulations, revenue rulings, revenue procedures, or other appropriate guidance until such time as taxes may no longer be assessed (except under section 6501(c)(1), (2), or (3)) for any year in which the taxpayer claims to have qualified research expenditures in connection with the research project; and
- (2) Satisfies section 6001 and the regulations thereunder.
- (e) Effective dates. In general, the rules of this section are applicable for expenditures paid or incurred on or after January 3, 2001. The rules of paragraph (d), however, apply to research projects that begin on or after March 5, 2001

T.D. 8930, 66 FR 290, Jan. 3, 20011

§1.41-4A Qualified research for taxable years beginning before January 1, 1986.

(a) General rule. Except as otherwise provided in section 30(d) (as that section read before amendment by the Tax Reform Act of 1986) and in this section,

the term "qualified research" means research, expenditures for which would be research and experimental expenditures within the meaning of section 174. Expenditures that are ineligible for the section 174 deduction elections are not expenditures for qualified research. For example, expenditures for the acquisition of land or depreciable property used in research, and mineral exploration costs described in section 174(d), are not expenditures for qualified research.

- (b) Activities outside the United States—(1) In-house research. In-house research conducted outside the United States (as defined in section 7701(a)(9)) cannot constitute qualified research. Thus, wages paid to an employee scientist for services performed in a laboratory in the United States and in a test station in Antarctica must be apportioned between the services performed within the United States and the services performed outside the United States, and only the wages apportioned to the services conducted within the United States are qualified research expenses unless the 80 percent rule of §1.41-2(d)(2) applies.
- (2) Contract research. If contract research is performed partly within the United States and partly without, only 65 percent of the portion of the contract amount that is attributable to the research performed within the United States can qualify as contract research expense (even if 80 percent or more of the contract amount was for research performed in the United States).
- (c) Social sciences or humanities. Qualified research does not include research in the social sciences or humanities. For purposes of section 30(d)(2) (as that section read before amendment by the Tax Reform Act of 1986) and of this section, the phrase "research in the social sciences or humanities" encompasses all areas of research other than research in a field of laboratory science (such as physics or biochemistry), engineering or technology. Examples of research in the social sciences or humanities include the development of a new life insurance contract, a new economic model or theory, a new accounting procedure or a new cookbook.

- (d) Research funded by any grant, contract, or otherwise—(1) In general. Research does not constitute qualified research to the extent it is funded by any grant, contract, or otherwise by another person (including any governmental entity). All agreements (not only research contracts) entered into between the taxpayer performing the research and other persons shall be considered in determining the extent to which the research is funded. Amounts payable under any agreement that are contingent on the success of the research and thus considered to be paid for the product or result of the research (see §1.41-2(e)(2)) are not treated as funding. For special rules regarding funding between commonly controlled businesses, see 1.41-6(e).
- (2) Research in which taxpayer retains no rights. If a taxpayer performing research for another person retains no substantial rights in research under the agreement providing for the research, the research is treated as fully funded for purposes of section 41(d)(4)(H), and no expenses paid or incurred by the taxpayer in performing the research are qualified research expenses. For example, if the taxpayer performs research under an agreement that confers on another person the exclusive right to exploit the results of the research, the taxpayer is not performing qualified research because the research is treated as fully funded under this paragraph (d)(2). Incidental benefits to the taxpayer from performance of the research (for example, increased experience in a field of research) do not constitute substantial rights in the research. If a taxpayer performing research for another person retains no substantial rights in the research and if the payments to the researcher are contingent upon the success of the research, neither the performer nor the person paying for the research is entitled to treat any portion of the expenditures as qualified research expenditures.
- (3) Research in which the taxpayer retains substantial rights—(i) In general. If a taxpayer performing research for another person retains substantial rights in the research under the agreement providing for the research, the research is funded to the extent of the payments

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(and fair market value of any property) to which the taxpayer becomes entitled by performing the research. A taxpayer does not retain substantial rights in the research if the taxpayer must pay for the right to use the results of the research. Except as otherwise provided in paragraph (d)(3)(ii) of this section, the taxpayer shall reduce the amount paid or incurred by the taxpayer for the research that would, but for section 41(d)(4)(H), constitute qualified research expenses of the taxpayer by the amount of funding determined under the preceding sentence.

- (ii) Pro rata allocation. If the taxpayer can establish to the satisfaction of the district director—
- (A) The total amount of research expenses,
- (B) That the total amount of research expenses exceed the funding, and
- (C) That the otherwise qualified research expenses (that is, the expenses which would be qualified research expenses if there were no funding) exceed 65 percent of the funding, then the taxpayer may allocate the funding pro rata to nonqualified and otherwise qualified research expenses, rather than allocating it 100 percent to otherwise qualified research expenses (as provided in paragraph (d)(3)(i) of this section). In no event, however, shall less than 65 percent of the funding be applied against the otherwise qualified research expenses.
- (iii) Project-by-project determination. The provisions of this paragraph (d)(3) shall be applied separately to each research project undertaken by the tax-payer.
- (4) Independent research and development under the Federal Acquisition Regulations System and similar provisions. The Federal Acquisition Regulations System and similar rules and regulations relating to contracts (fixed price, cost plus, etc.) with government entities provide for allocation of certain "independent research and development costs" and "bid and proposal costs" of a contractor to contracts entered into with that contractor. In general, any "independent research and development costs" and "bid and proposal costs" paid to a taxpayer by reason of such a contract shall not be treated as

funding the underlying research activities except to the extent the "independent research and development costs" and "bid and proposal costs" are properly severable from the contract. See §1.451–3(e); see also section 804(d)(2) of the Tax Reform Act of 1986.

- (5) Funding determinable only in subsequent taxable year. If at the time the taxpayer files its return for a taxable year, it is impossible to determine to what extent particular research performed by the taxpayer during that year may be funded, then the taxpayer shall treat the research as completely funded for purposes of completing that return. When the amount of funding is finally determined, the taxpayer should amend the return and any interim returns to reflect the proper amount of funding.
- (6) Examples. The following examples illustrate the application of the principles contained in this paragraph.

Example 1. A enters into a contract with B Corporation, a cash-method taxpayer using the calendar year as its taxable year, under which B is to perform research that would, but for section 41(d)(3)(H), be qualified research of B. The agreement calls for A to pay B \$120x, regardless of the outcome of the research. In 1982, A makes full payment of \$120x under the contract, B performs all the research, and B pays all the expenses connected with the research, as follows:

Outside research:	
(Amount B paid to third parties for	
research, 65 percent of which	
(\$26x) is treated as a contract re-	
search expense of B)	40x
Overhead and other expenses	10x
-	
Total	150x

In-house research expenses

If B has no rights to the research, B is fully funded. Alternatively, assume that B retains the right to use the results of the research in carrying on B's business. Of B's otherwise qualified research expenses of \$126x + \$26x), \$120x is treated as funded by A. Thus \$6x (\$126x - \$120x) is treated as a qualified research expense of B. However, if B establishes the facts required under paragraph (d)(3) of this section. B can allocate the funding pro rata to nonqualified and otherwise qualified research expenses. Thus \$100.8x (\$120x (\$126x/\$150x)) would be allocated to otherwise qualified research expenses. B's qualified research expenses would be \$25.2x (\$126x - \$100.8x). For purposes of the following examples (2), (3) and (4) assume that

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B retains substantial rights to use the results of the research in carrying on B's business

Example 2. The facts are the same as in example (1) (assuming that B retains the right to use the results of the research in carrying on B's business) except that, although A makes full payment of \$120x during 1982, B does not perform the research or pay the associated expenses until 1983. The computations are unchanged. However, B's qualified research expenses determined in example (1) are qualified research expenses during 1983.

Example 3. The facts are the same as in example (1) (assuming that B retains the right to use the results of the research in carrying on B's business) except that, although B performs the research and pays the associated expenses during 1982, A does not pay the \$120x until 1983. The computations are unchanged and the amount determined in example (1) is a qualified research expense of B during 1982.

Example 4. The facts are the same as in example (1) (assuming that B retains the right to use the results of the research in carrying on B's business) except that, instead of agreeing to pay B \$120x, A agrees to pay \$100x regardless of the outcome and an additional \$20x only if B's research produces a useful product. B's research produces a useful product and A pays B \$120x during 1982. The \$20x payment that is conditional on the success of the research is not treated as funding. Assuming that B establishes to the satisfaction of the district director the actual research expenses, B can allocate the funding to nonqualified and otherwise qualified research expenses. Thus \$84x (\$100x (\$126x/\$150x)) would be allocated to otherwise qualified research expenses. B's qualified research expenses would be \$42x (\$126x - \$84x).

Example 5. C enters into a contract with D, a cash-method taxpayer using the calendar year as its taxable year, under which D is to perform research in which both C and D will have substantial rights. C agrees to reimburse D for 80 percent of D's expenses for the research. D performs part of the research in 1982 and the rest in 1983. At the time that D files its return for 1982. D is unable to determine the extent to which the research is funded under the provisions of this paragraph. Under these circumstances, D may not treat any of the expenses paid by D for this research during 1982 as qualified research expenses on its 1982 return. When the project is complete and D can determine the extent of funding, D should file an amended return for 1982 to take into account any qualified research expense for 1982.

[T.D. 8251, 54 FR 21204, May 17, 1989. Redesignated and amended by T.D. 8930, 66 FR 295, Jan. 3, 2001]

§ 1.41-5 Basic research for taxable years beginning after December 31, 1986. [Reserved]

§1.41-5A Basic research for taxable years beginning before January 1, 1987.

- (a) In general. The amount expended for basic research within the meaning of section 30(e) (before amended by the Tax Reform Act of 1986) equals the sum of money plus the taxpayer's basis in tangible property (other than land) transferred for use in the performance of basic research.
- (b) Trade or business requirement. Any amount treated as a contract research expense under section 30(e) (before amendment by the Tax Reform Act of 1986) shall be deemed to have been paid or incurred in carrying on a trade or business, if the corporation that paid or incurred the expenses is actually engaged in carrying on some trade or business.
- (c) Prepaid amounts—(1) In general. If any basic research expense paid or incurred during any taxable year is attributable to research to be conducted after the close of such taxable year, the expense so attributable shall be treated for purposes of section 30(b)(1)(B) (before amendment by the Tax Reform Act of 1986) as paid or incurred during the period in which the basic research is conducted.
- (2) Transfers of property. In the case of transfers of property to be used in the performance of basic research, the research in which that property is to be used shall be considered to be conducted ratably over a period beginning on the day the property is first so used and continuing for the number of years provided with respect to property of that class under section 168(c)(2) (before amendment by the Tax Reform Act of 1986). For example, if an item of property which is 3-year property under section 168(c) is transferred to a university for basic research on January 12, 1983, and is first so used by the university on March 1, 1983, then the research in which that property is used is considered to be conducted ratably from March 1, 1983, through February 28, 1986.
- (d) Written research agreement—(1) In general. A written research agreement